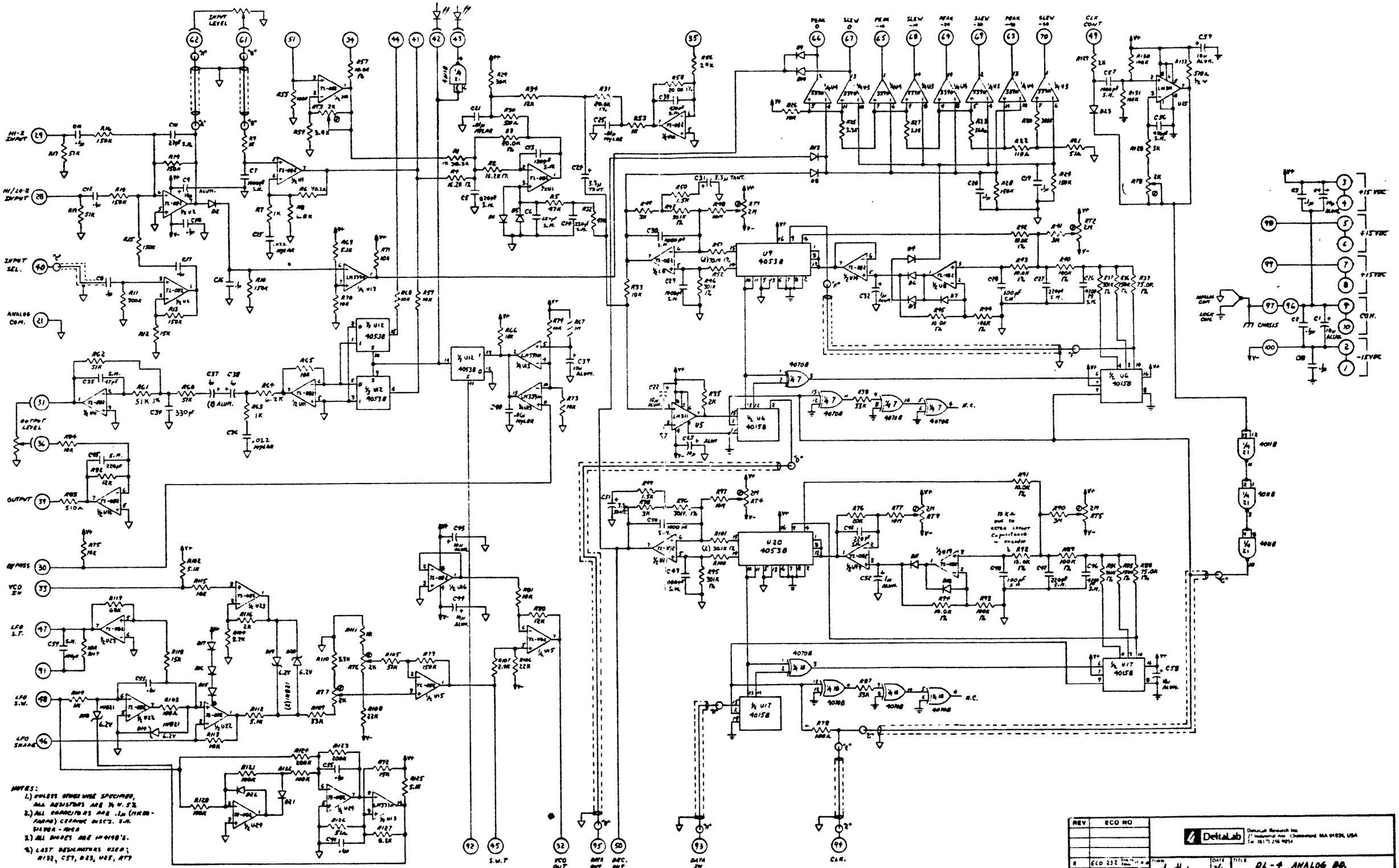



NOTES:
1.) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE ¼ W. 5%
2.) ALL CAPACITORS ARE .1µ (MICRO-FARAD) CERAMIC DISCS. S.M. SILVER - MICA
3.) ALL DIODES ARE IN4148'S.
4.) LAST DESIGNATORS USED; R132, C59, D23, U25, RT7

DL-4 ANALOG BD.

| REV | ECO NO |
|---|---|
| H | ECO 232 |
| G | ECO #0 11-6-8 |
| F | ECO #1 6-25-81 |
| E2 | ECN #014 |
| E1 | ECN 009 |
| B | REDRAW |

DeltaLab — DeltaLab Research Inc., 2 Industrial Ave., Chelmsford MA 01824, USA, Tel (617) 256-7014

| | | |
|---|---|---|
| DRAWN J. Hudson | DATE 7/1 | TITLE DL-4 ANALOG BD. |
| CHKD | DATE | - SCHEMATIC - |
| APPD KEB | DATE 9/6 | SIZE D · DWG NO 48-1001 · REV H |
| SCALE | | SHEET 1 OF 1 |

CLOCK IN

CAS

WRITE

CAS

RAS

+12V

+5V

COM.

-5V

LSB

MSB

x1

x2

x4

Auto/MAN

U15 401938

U14 401938

U16 401938

U6 401938

U4 4019B

U7 4019B

U5 4019B

U8 4019B

U30 4116

U31 4116

U32 4116

U33 4116

U19 4116

U20 4116

U21 4116

U22 4116

U17 4071B

U23 401938

U29 4008B

U37 4028B

U36 4053B

U18 4052B

4049UB

4099UB

2N2222

2N3906

2N4711

NOTES:

1.) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/4 W 5%

2.) ALL CAPACITORS ARE .1u CERAMIC

3.) ALL DIODES ARE IN4148

4.) LAST DESIGNATORS USED: R58, U37, C30, D10, Q8

5.) DO NOT USE NATIONAL SEMICONDUCTOR 401938 or 4008 U33

SPARES

DL-4 DIGITAL BD.

| REV | ECO NO |
|---|---|
| E | REDRAW |

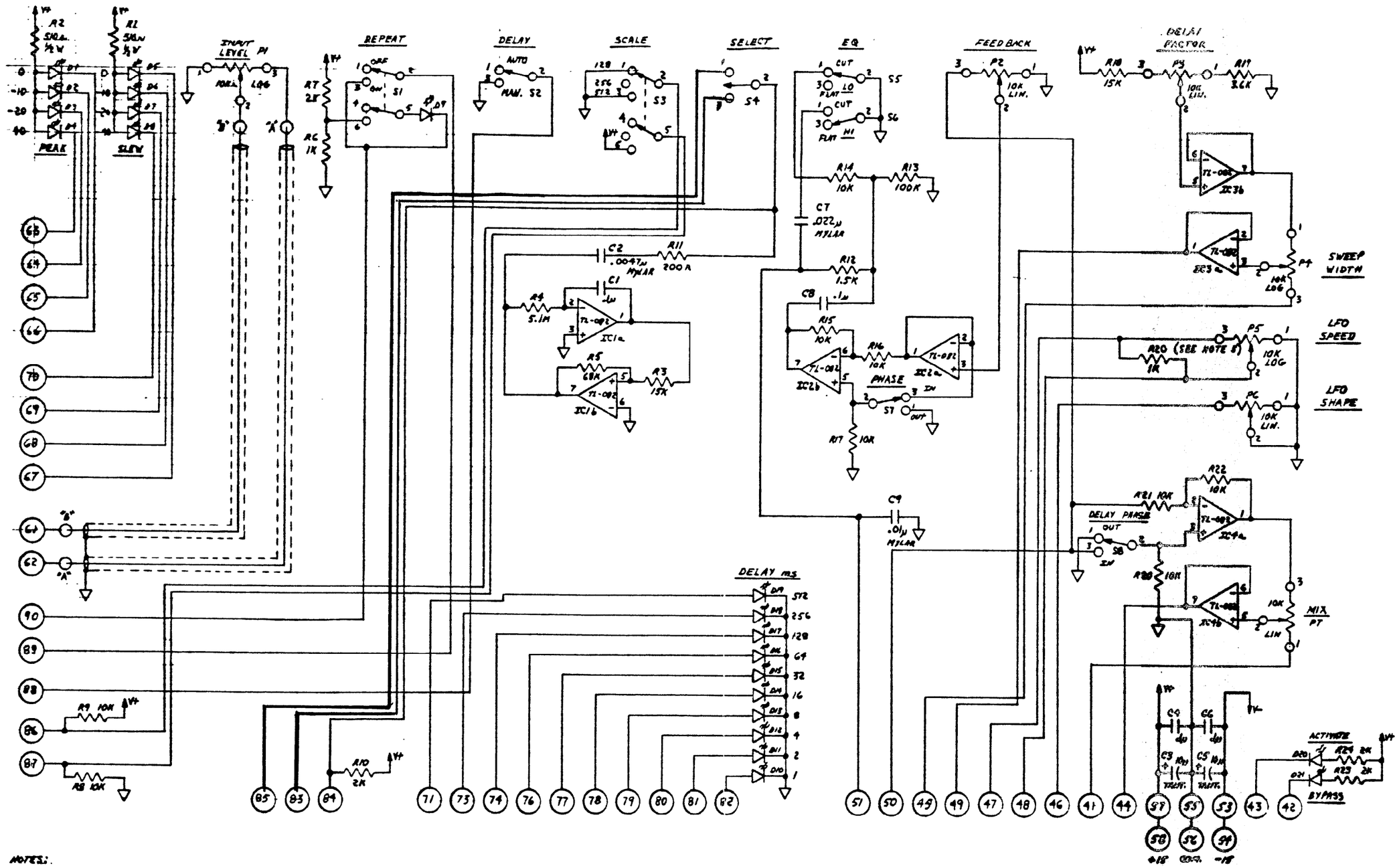
DeltaLab Research Inc.
27 Industrial Ave., Chelmsford, MA 01824, USA
Tel (617) 256-9094

DRWN [signature] DATE 4/13
CHKD DATE
APVD DATE

TITLE DL-4 DIGITAL BD.
- SCHEMATIC -

SIZE D DWG NO 40-1002 REV E

SCALE SHEET 1 OF 1




NOTES:
1.) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE ¼W. 5%.
2.) ALL DIODES ARE LEDS, P.N. 21-0032-XX
3.) ALL CAPACITORS ARE .1µF MONOLYTHIC
4.) ALL OP AMPS (IC1-IC3) +15 TO PIN 8 -15 TO PIN 4.
5.) A20 USED ONLY WITH ALLEN BRADLEY POT BEING USED FOR LFO SPEED CONTROL. (CORRECTS INACCURATE TAPER)
6.) LAST DESIGNATORS USED; A25, D21, P7, IC4, S8, C9, CN5

LED COLOR CHART

| | | |
|---|---|---|
| RED | 21-0032-00 | D1, D5, D7-D9, D21 |
| GRN. | 21-0032-01 | D3, D4, D7-D13 |
| YEL. | 21-0032-02 | D2, D6, D14-D16, D20 |

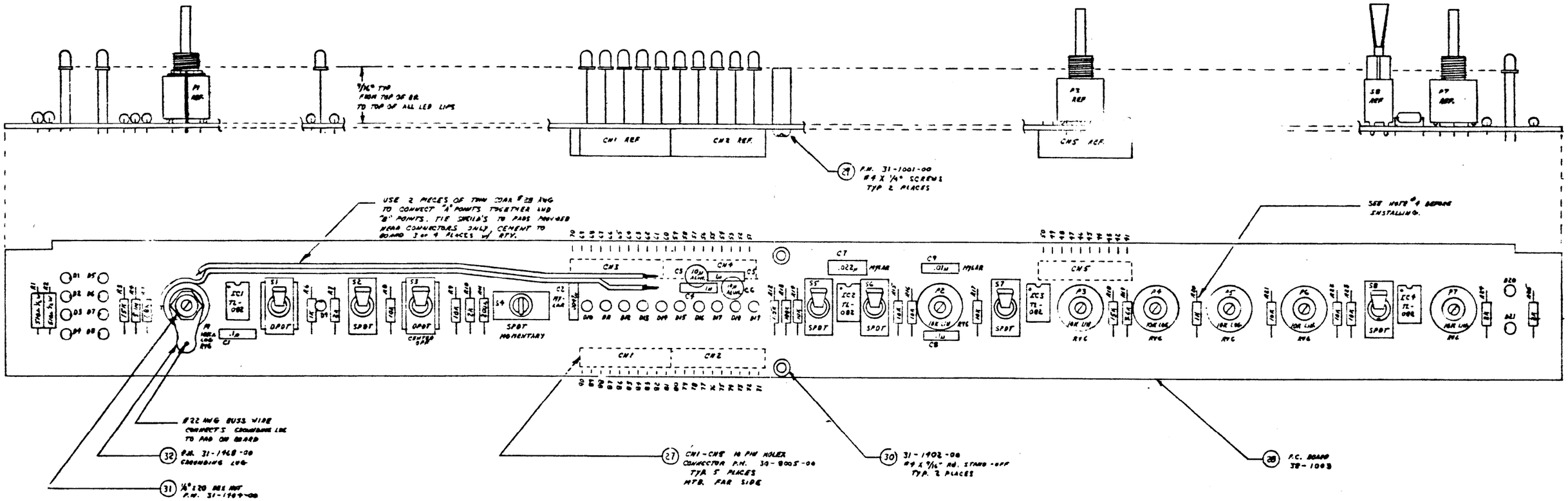
| REV | ECO NO |
|---|---|
| E | REDRAW |

DeltaLab Research Inc.
27 Industrial Ave., Chelmsford, MA 01824, USA
Tel: (617) 256-9034

DWN: J. Anderson DATE: 6/30
CHKD: DATE:
APPD: RSA DATE: 10/6

TITLE: DL-4 FRONT SUB-PANEL -SCHEMATIC-
SIZE: C DWG NO: 49-1003 REV: E
SCALE: NONE SHEET 1 OF 1

DL-4 FRONT SUB-PANEL




LED COLOR CHART

| | | | |
|---|---|---|---|
| RED | 21-0032-00 | D1, D5; CH1-CH9, D21 | (6) |
| YELLOW | 21-0032-02 | D2, D6; CH9-CH6, D20 | (6) |
| GREEN | 21-0032-01 | D3, D4, D7-CH5 | (9) |

NOTES:
1.) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/4W 5%
2.) ALL DIODES ARE LEDS P.N. 21-0032-XX
3.) ALL CAPACITORS ARE .1µ 400 VOLTS MIN.
4.) R20 USED ONLY WITH ALLEN BRADLEY POT R21 & 22 USED FOR LFO SPEED CONTROL. (P7) (CORRECTS INACCURATE TAPER)
5.) LAST DESIGNATIONS USED; R55, R21, P7, IC9, S8, C9, CH5

| REV | ECO NO | | | |
|---|---|---|---|---|
| | | DeltaLab Research Inc. 27 Industrial Ave. Chelmsford, MA 01824, USA Tel. (617) 256-4554 | | |
| | | DWN | DATE 9/8 | TITLE DL-4 FRONT SUB-PANEL BD - ASSEMBLY - |
| | | CHKD | DATE | SIZE D DWG NO 42-1003 REV E |
| E | REDRAW | APPD | DATE 9/11/78 | SCALE 2:1 SHEET 1 OF 1 |

CN2

CN3

(69) CN3, CN2
P.N. 30-7903[illegible]-00
DELTA "C" CABLES

CN4 CABLE'S LENGTHS AS REQ'D TYP 8 PLACES.

CN1
P.N. 30-8006-06
MOLEX 18 PIN CONNECTOR 90° RT. ANGLE FEMALE

(71) CN1

CN9

CN6

CN5

CN7

(70) CN7
P.N. 30-8001
MOLEX 10 PIN FEMALE BOTTOM ENTRY

CN4

(72) CN4 - CN6
P.N. 30-9004-00
MOLEX 18 PIN RT. ANGLE HEADER
TYP. 3 PLACES

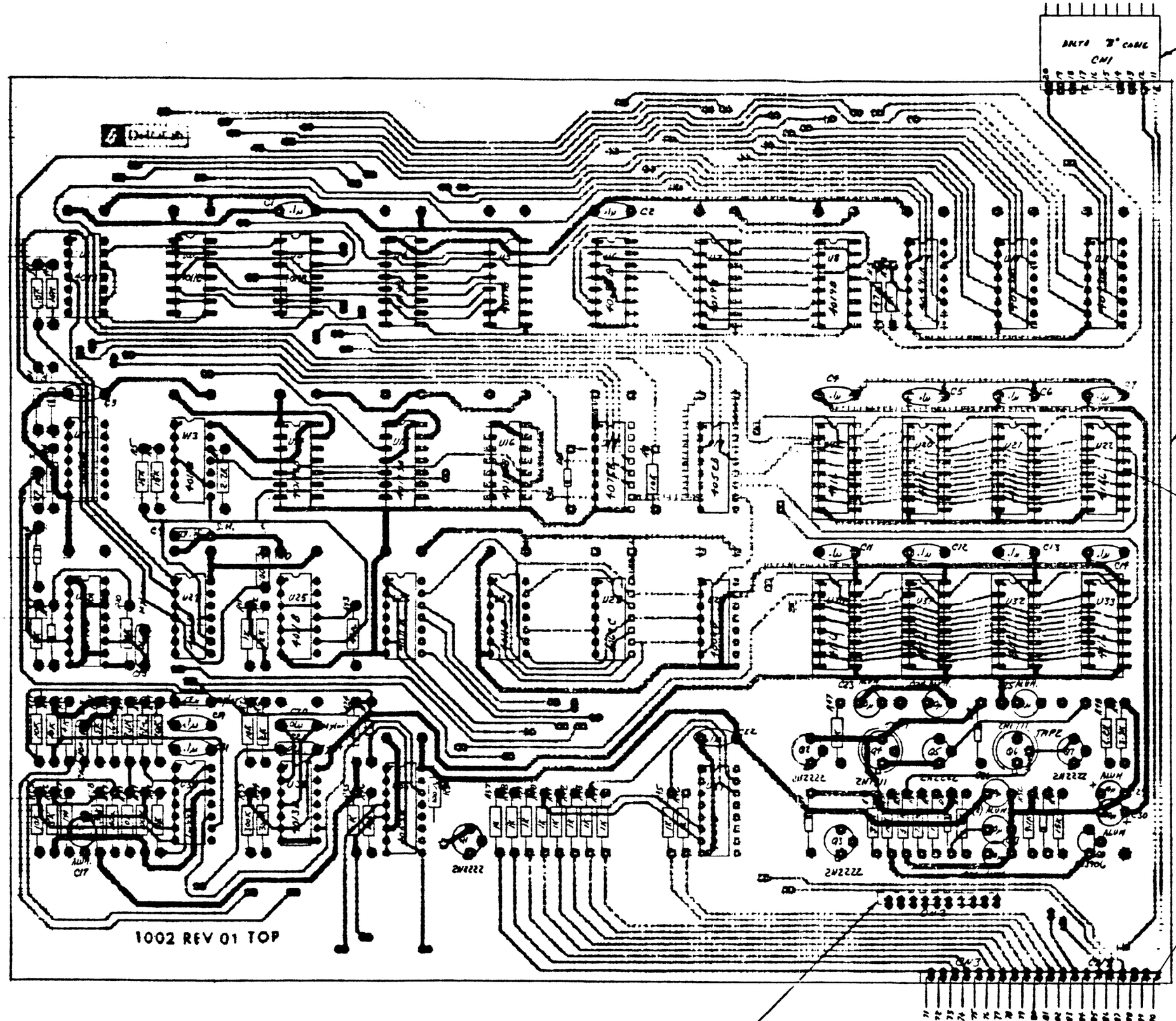
(73) P.N. 38-1001
P.C. 80###

NOTES:
1.) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE ¼ W. 5%
2.) ALL DIODES ARE 1N4148'S
3) ALL CAPACITORS ARE ½₀ (MICRO-FARAD) CERAMIC DISC'S. S.M. = SILVER MICA
4.) LAST DESIGNATORS USED: R892, C59, D28, U25, RT9

| REV | ECO NO |
|---|---|
| G | ECO 198 |
| F | ECO 198 |
| E2 | ECN 019 |
| E1 | ECN 007 |
| E | REDRAW |

DeltaLab

| | | | |
|---|---|---|---|
| DRAWN | J. Hudson | SIZE | D |
| DATE | 9/8 | TITLE | DL-4 ANALOG BD. - ASSEMBLY - |
| CHECK | | DWG NO | 42-1001 |
| DATE | 11/4/80 | SCALE | 2:1 |
| | | SHEET | 1 OF 1 |




(48) CONNECTOR
30-7004-00
MTD. FROM EAR SIDE

NOTES:
1.) UNLESS OTHERWISE SPECIFIED;
ALL RESISTORS ARE ¼ W. 5%
2.) ALL DIODES ARE 1N4148
3.) ALL CAPACITORS ARE .1μ CERAMIC DISC'S
S.M. = SILVER MICA.
4.) LAST DESIGNATORS USED;
R58, U37, C31, D10, Q8
5.) DO NOT USE NAT. SEMICONDUCTOR 40174B IN
LOCATION U23

(52) P.C. BOARD
30-1002

(51) 16 PIN IC SOCKET
TYP. 8 PLACES
U19 - U33

(50) 10 PIN RT ANGLE HEADER
30-8004-00
THIS SIDE TYP. 2 PLACES

(49) 10 PIN STRAIGHT CONNECTOR
30-8002-00
MTD. FROM FAR-SIDE

| REV | ECO NO |
|---|---|
| E | REDRAW |

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27 Industrial Ave., Chelmsford, MA 01824, USA
Tel: (617) 256-9054

| | | | |
|---|---|---|---|
| DRAWN | | DATE 10/15 | TITLE DL-4 DIGITAL BD. - ASSEMBLY - |
| CHKD | | DATE | |
| APPD | | DATE | SIZE D DWG NO 42-1002 REV E |
| | | | SCALE 2:1 SHEET 1 OF 1 |